

Work Order ID 137953

October 16, 2015 11:22:16 AM

137953

Page 1

Item ID: D350-636-016 Accept *N9000040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.
 Start Date: 10/16/2015 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 10/30/2015 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: SLA 20151016 Date: Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D4168-042	B								

100 Document Control 0.00 DAS 6 9-89
 100 DOCUMENT CONTROL
 DC Memo 89.50 0.00
 Doc.Control -USB or Paperwork record fwd angle:

Photocopy blue file and type labels per PPP D350-636-016 CHG 005

DAS
28
9-89 JAN 26 2016

B137953 RH

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

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Item ID: D350-636-016

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00

110

Skidtubes

Skidtubes

Memo

0.01

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D4168

3- Drill pilot holes for blade fitting bolt holes using DT8983. Start with 3/16", then open to 0.500" using center drill then ream holes using 0.500" reamer. PIN first side. Repeat process on second side.

ENSURE PROPER POSITIONING FWD BEND MUST BE FACING UP WHEN DRILLING FIRST SIDE

4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting, section R-R and open to 0.500"

6- Drill most FWD wearplate hole using DT9678 locating of 66.54" hole

7- Open up holes of Detail J to 0.297" (total of 2 holes per side) +.201" (total of one hole per side) as per dwg D4168.

8- Weld D2744 Cap as per Dwg D4168 and QSI 004. Fill grooves in bend left from bending as per QSI 004

A/R Aluminum Rod batch: M132917

9- Grind welds flush as per Dwg D4168

15-10-20

7-15-10-20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
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Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
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Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER :																			

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N900040100

Setup Start *NS1*

Stop *NS2*

Stop *NS2*

Start Date: 10/16/2015 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 **Req'd Qty:** 1.00 *** 1 ***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run** **Start** ***NR1***
 QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120	QC10- Inspect visual per QSI004- ground welds	0.00
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120

QC

Quality Control

Memo

0.00

130	QC5- Inspect part completeness to step on W/O	0.00
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130

QC

Quality Control

Memo

0.00

140	Chemical Conversion Coat per QSI005 4.1	0.00
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140

HandFinish

Hand Finishing

Memo

0.00

DAS
38

38

9-1

OCT 22 2015

DAS
35

34

6

OCT 22 2015

15-10-22

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
				OTHER : ☐							

Work Order ID 137953

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Item ID: D350-636-016

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Stop ***NS2***Start Date: 10/16/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150	QC7-Inspect Chemical Conversion Coat	0.00							
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150

QC

Memo

0.00

Quality Control

1	0	15-10-22	Don
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

Work Order ID 137953

October 16, 2015 11:22:16 AM

137953

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Item ID: D350-636-016

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

160

Skidtubes

Skidtubes

Skidtubes

Memo

0.02

1-Open up holes using hole saw of Detail L and ground handling to 0.625"
(total of 8 holes per side)
as per dwg D4168.

2-Open up holes using hole saw of Detail K to 0.750" (total of 4 holes per side)
as per dwg D4168.

3- Open float hole to 0.500" using uni-bit (4 per side) and Run on wearplate
holes to .375" 4 per side

4-Chamfer holes of Detail K,L, ground handling and float holes per dwg D4168
(welding instructions on sheet 9)

5-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per OSI 015, let cure for 12hrs.

A/R Sikaflex-291 batch: 133136
exp. date: 16-2-12

ATTN: USE I-BEAM LOCATION AID (BLADE FITTING)

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D4168 & QSI004
(welding instructions on sheet 8)

A/R Aluminum Rod batch: M132917

9- At section AP-AP drill out x-bolt spacer to 0.404"

*JD 15-10-22**78E15-11-23*

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging Supplier ☐ Engineering Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐
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Misidentified ☐	☐	Past Due ☐	☐				

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Item ID: D350-636-016

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Stop ***NS2***

Start Date: 10/16/2015 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00 ***1***

Customer:

Reference:

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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10-Grind welds flush as per Dwg D4168 *15-10-9LK*

11-Spot face ground handling holes section (total of 4 places per side) as per *15-11-10LK*
dwg D4168

12- Bore section CH-CH ADJUST TOOLING AS REQUIRED.
VERF BY: *DD* *15-11-11*

13- Deburr holes, ensure tube is free of all scratches before sending to *15-11-10LK*
paint.

***** FOR DELUXE SKIDTUBE IF APPLICABLE DRILL TOW RING
HOLE IN TUBE *****
*****REF TO W/O BATCH: *N/A* *****

170

QC10- Inspect visual per QSI004- ground welds 0.00

170

QC

Memo 0.00

Quality Control

DAS
38
0.89

NOV 11 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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		OTHER : ☐							

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N900040100

Setup Start ***NS1***

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Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Stop ***NS2***

Start Date: 10/16/2015 Start Qty: 1.00 ***1***

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Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo ***VERIFY C'BOARD IS GOOD***	0.00 0.00				1			38 9-89 NOV 11 2015
190 *190* HandFinish Hand Finishing	Pressure Wash per QSI005 4.3 Memo Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.	0.00 0.01							15-11-11
200 *200* SprayPaint Spray Painting	 Memo 1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: <u>132919</u> 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: <u>133325</u>	0.00 0.00				1			DAS 41 9-89 15-11-27

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mis-labeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐									

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
				OTHER : ☐							

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MC5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
				OTHER : ☐							

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Page 1

Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev:A 10.09.28 new issue DD verf:EC IPP Rev:B
11.04.14 ecn11-553 DD verf:EC IPP Rev:C 11.10.18 as
per NCR 11-906 DD verf:EC IPP REV:D 13.08.28 PER ECN13-
594 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3490-1		Manufactured	No			160	Each	90.0000	4	4			
---------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--

D3490-1

Cross Bolt Spacer

**

BE 12/1/03

Location	Loc Qty	Loc Code
----------	---------	----------

LG	23	
----	----	--

133205	23	
--------	----	--

LG001	67	
-------	----	--

134019	67	
--------	----	--

D3490-3		Manufactured	No			160	Each	19.0000	4	4			
---------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--

D3490-3

Cross Bolt Spacer

**

BE 12/1/03

B 137807 x 2

Location	Loc Qty	Loc Code
----------	---------	----------

LG	19	
----	----	--

130730	19	
--------	----	--

AN3C34A		Purchased	No			230	Each	13.0000	1	1			
---------	--	-----------	----	--	--	-----	------	---------	---	---	--	--	--

AN3C34A

BOLT

**

10/12/03

Location	Loc Qty	Loc Code
----------	---------	----------

ST348	13	
-------	----	--

m131618	3	
---------	---	--

m133077	10	
---------	----	--

M133483

x1

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

AN3C36A

Purchased

No

230

Each

Start Qty: 1.00
4 4

Required Qty: 1.00

AN3C36A

Bolt

**

all 10/12/03

Location	Loc Qty	Loc Code
FG	47	
101261	4	
122204	2	
m131367	1	
m132169	40	
FP001	27	
m131856	27	
ST338a	152	
m132381	80	
m132522	72	
ST347	74	
131651	74	

X 1
X 3

AN3C37A

Purchased

No

230

Each

457.0000 1 1

AN3C37A

BOLT

**

Location	Loc Qty	Loc Code
ST338a	457	
131651	70	
M128773	1	
M129650	55	
M131367	70	
M131856	70	
M132169	70	
M132381	70	
M132522	51	

DAS
28
9-89

DAS
6
9-89

JAN 25 2016

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Shop Packet Print

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Page 3

Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

AN3C42A

Purchased

No

230

Each

81.0000

Start Qty: 1.00

1

1

Required Qty: 1.00

AN3C42A

Bolt

**

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

5

121103

5

ST338a

61

m130485

3

m131856

10

m132381

8

m132522

10

m132674

10

m133091

10

m133336

10

ST346

15

m131854

5

m131855

10

D3488-042

Manufactured

No

230

Each

15.0000

1

1

D3488-042

Blade Fitting RH

**

15/12/07

Location

Loc Qty

Loc Code

FP

8

131621

8

FP001

7

129602

7

D3492-1

Manufactured

No

230

Each

19.0000

8

8

D3492-1

Plug

**

15/12/07

Location

Loc Qty

Loc Code

FP001

19

131952

19

B139053

15

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

D3492-3

Manufactured No

230

Each

62.0000

Start Qty: 1.00
8 8

Required Qty: 1.00

D3492-3

Plug

**

all 15/12/07

Location

Loc Qty

Loc Code

FP001

62

125905

2

13139006

x 8

131036

1

131899

10

133470

49

D3873-1

Manufactured No

230

Each

13.0000

7

7

D3873-1

Bushing

**

all 15/12/07

Location

Loc Qty

Loc Code

FP001

7

126709

2

13136425

x 7

129742

5

ST063

6

134885

6

D4154-041

Manufactured No

230

Each

0.0000

1

1

D4154-041

Wearplate Assembly

**

13138703 (1c) all 15/12/07

D4170-1

Manufactured No

230

Each

69.0000

4

4

D4170-1

Bushing

**

8615-11-03

Location

Loc Qty

Loc Code

LG001

69

107896

69

4

Picklist Print

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

D4171-1

Manufactured No

230

Each

18.0000

Start Qty: 1.00

Required Qty: 1.00

1

1

D4171-1

Bushing

**

B137712 (11) 11/16/0108

Location

Loc Qty

Loc Code

ST088

18

129060

18

MS21043-3

Purchased No

230

Each

690.0000

5

5

MS21043-3

Nut

**

11/12/07

Location

Loc Qty

Loc Code

FG

80

103691

80

FP001

11

m130673

11

GA

139

m130673

15

m131677

124

ST304

423

m131340

160

m133031

263

ST308

37

m132551

37

X5

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

NAS1149C0363R

Purchased

No

230

Each

Start Qty: 1.00
1,083.000 9 9

Required Qty: 1.00

NAS1149C0363R

Washer

**

ell 15/12/07

Location

Loc Qty

Loc Code

FP001

26

114742

26

GA

506

m133077

506

ST260a

494

m133077

494

ST271

57

m130673

20

m132763

37

x9

NAS1515H3L

Purchased

No

230

Each

275.0000 4 4

***NAS1515H3I ***

Washer

**

ell 15/12/07

Location

Loc Qty

Loc Code

FG

40

102472

40

FP001

55

m127831

55

ST266

180

m127831

40

m130726

140

x4

NAS1611-010

Purchased

No

230

Each

431.0000 8 8

NAS1611-010

O-RING

**

ell 15/12/07

Location

Loc Qty

Loc Code

FP001

431

m130770

271

m131618

160

x8

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

NAS1611-013

Purchased

No

230

Each

Start Qty: 1.00
230.0000 8 8

Required Qty: 1.00

NAS1611-013

O-Ring

**

all 10/20/15

Location

Loc Qty

Loc Code

FP001

230

m130758

230

X 2

NAS1149D0863J

Purchased

No

250

Each

594.0000 2 2

NAS1149D0863.J

Washer

**

DAS
6
9-89

JAN 25 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

49

125484

49

ST260a

415

125268

315

125635

100

ST269

130

125268

130

2

D2744

Manufactured

No

110

Each

18.0000 1 1

D2744

Cap

**

8/15/10-20

Location

Loc Qty

Loc Code

LG001

18

128212

4

136178

14

D2600-3-BENT-RH

Manufactured

No

110

Each

6.0000 1 1

D2600-3-BFNT-RH

Extrusion Bent RH

**

15-10-20

Location

Loc Qty

Loc Code

LG002

6

130079

5

130173

1

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

D2743

Manufactured No

160

Each

Start Qty: 1.00
58.0000 8 8

Required Qty: 1.00

D2743

Crossbolt Spacer

**

BE 13-1103

Location

Loc Qty

Loc Code

LG001

58

(30731)

58

8

D2739

Manufactured No

160

Each

0.0000 1 1

D2739

350 I Beam

ALS4-1032-225

AELS8-1032-225

Purchased

No

230

Each

556.0000 4

**

137803 x1 Dec 16-10-22.

ALS4-1032-225

Rivnut

**

10/12/10

Location

Loc Qty

Loc Code

FG

120

M127028

120

11133772

25

FP001

45

M131582

45

st549

391

M131582

391

Picklist Print

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float
Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

AN8C35A

Purchased

No

230

Each

Start Qty: 1.00
99.0000 1 1

Required Qty: 1.00

AN8C35A

Bolt

Handwritten: 15/10/2015

Location

Loc Qty

Loc Code

FG

5

121275

5

FP001

64

m131947

13

m132169

6

m132381

15

m132522

15

m132674

15

ST273A

30

m133332

15

m133336

15

Handwritten: X1

Picklist Print

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

AN6C44A

Purchased

No

230

Each

Start Qty: 1.00
601.0000 4 4

Required Qty: 1.00

AN6C44A

Bolt

all 13102015

Location

Loc Qty

Loc Code

FP001

123

131649

100

m131367

1

m132169

22

ST273A

413

m130863

13

m131151

50

m132381

52

m132522

52

m132556

246

ST332

11

m130863

11

ST333

54

m130863

4

m131946

50

MS21083C8

Purchased

No

230

Each

35.0000 1 1

MS21083C8

Nut

all 10/12/15

Location

Loc Qty

Loc Code

ST300

35

m132067

2

m133016

19

m133134

14

11133664

21

Picklist Print

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

D3631-1

Manufactured No

230 Each

178.0000 Start Qty: 1.00
8 8

Required Qty: 1.00

D3631-1

Washer

**

all 10/16/15

Location

Loc Qty

Loc Code

FP001

178

128320

6

135951

100

136593

72

x 8

NAS1149C0332R

Purchased No

230 Each

5,312.000 4 4

NAS1149C0332R

WASHER

**

all 10/16/15

Location

Loc Qty

Loc Code

FP001

1004

m132930

1004

FP01

1521

m133284

1521

GA

441

m133284

441

ST271

2346

m133284

2346

x 4

D2745

Manufactured No

230 Each

71.0000 8 8

D2745

Bushing

**

all 10/16/15

Location

Loc Qty

Loc Code

FP001

71

129584

7

131049

14

136214

50

B139008

x 8

Picklist Print

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Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

NAS1149C0832R Purchased No 230 Each 99.0000 Start Qty: 1.00 1 1

NAS1149C0832R

Washer

all 10/16/15

Location

Loc Qty

Loc Code

ST271

99

m125807

99

AN3C6A Purchased No

230 Each

159.0000 4 4

AN3C6A

Bolt

all 10/16/15

Location

Loc Qty

Loc Code

CA

39

m128704

39

M133690

x4

FG

10

122416

10

ST249

50

m133363

50

ST338a

56

m128769

50

m133077

6

ST349

4

m132767

4

Picklist Print

October 16, 2015 11:22:22 AM

Page 13

Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

MS21043-6

Purchased

No

230

Each

Start Qty: 1.00
4 4

Required Qty: 1.00

MS21043-6

NUT

**

10/16/2015

Location

Loc Qty

Loc Code

FG

20

103693

20

M133483

x1

FP001

26

131618

2

M133433

x3

m130325

2

m133077

1

m133234

21

ST304

13

m132164

13

D3493-1

Manufactured

No

250

Each

25.0000 2 2

D3493-1

Washer

**

137724

DAS

27

9-89

DAS

6

9-89

Location

Loc Qty

Loc Code

FG

10

97201

10

ST039

15

128755

15

MS21083C8

Purchased

No

250

Each

35.0000 2 2

MS21083C8

Nut

**

133574

DAS

27

9-89

DAS

6

9-89

Location

Loc Qty

Loc Code

ST300

35

m132067

2

m133016

19

m133134

14

DAS
28
9-89

Picklist Print

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Page 14

Work Order ID: 137953

137953

Parent Item: D350-636-016

D350-636-016

Parent Item Name: Skidtube RH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

AN8C21A

Purchased

No

250

Each

Start Qty: 1.00
2 2

Required Qty: 1.00

AN8C21A

Bolt

**

DAS
6
9-89

Location

Loc Qty

Loc Code

FG

4

123966

2

m132169

2

ST273A

69

m132542

11

m132674

30

m133332

28

ST332

19

m131100

1

m132169

2

m132381

12

m132522

4

DAS
28
9-89

D2741

Manufactured

No

250

Each

28.0000

1

1

D2741

Replacement Blade

**

135909

DAS
6
9-89

Location

Loc Qty

Loc Code

FG

10

131616

10

ST538

18

131616

1

132981

17

DAS
28
9-89

JAN 25 2016

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D3488-041	BLADE FITTING, LH
	1			D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN960C10	WASHER (OR NAS1149C0363R)
4	4	4	4	AN960C10L	WASHER (OR NAS1149C0332R)
1	1	1	1	AN960C816L	WASHER (OR NAS1149C0832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

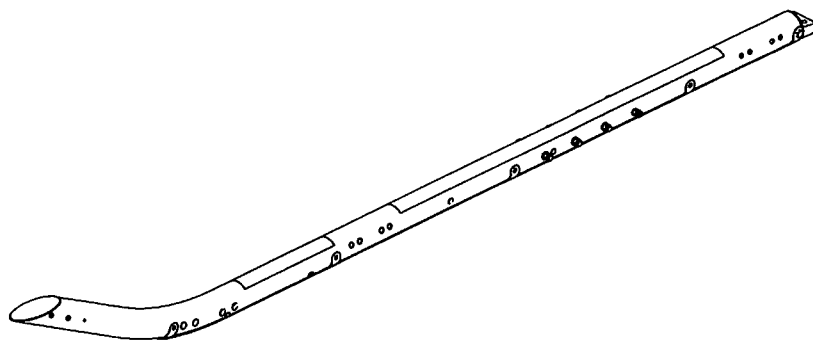
GENERAL NOTES:

- MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0" ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- WELD PER DART QSI 004
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

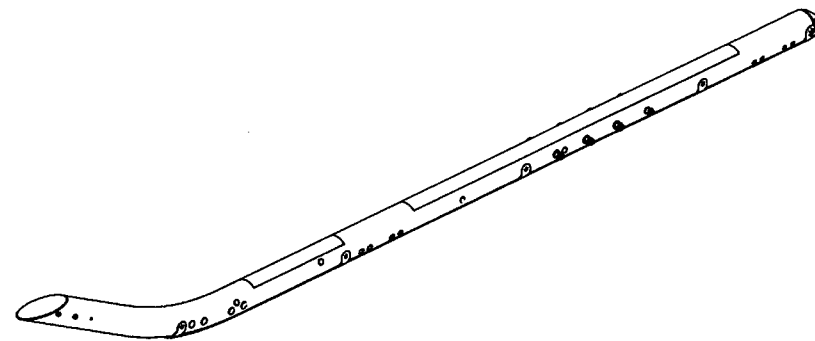
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2013-08-13
MP

20151016 SW 131953

B	ADD VIEW TO CONTROL FWD BEND ORIENTATION (ZI D-141-81-61-7); UPDATED FINISH OPTIONS. REASON: PAR13-276 AND NCR13-2757	MB	13.07.11
A	NEW ISSUE	SC	10.08.09
REV	DESCRIPTION	BY	DATE
DESIGN	SE	DART AEROSPACE USA, INC.	
DRAWN	JP	KENT, WA	
CHECKED	JP	DRAWING NO.	REV. B
MFG. APPR.	JP	D4168	SHEET 1 OF 11
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	350 SKIDTUBE ASSEMBLY	NTS
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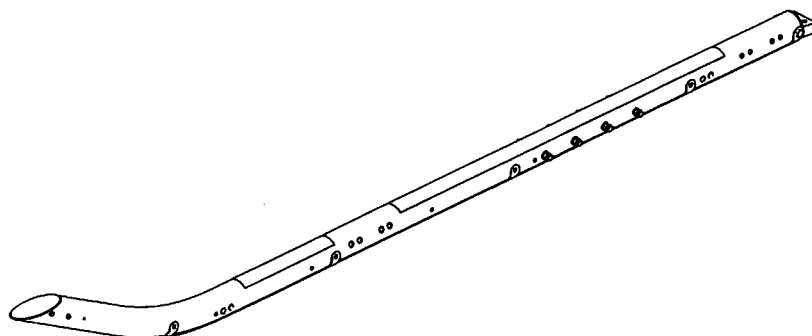
D4168-041 350 SKIDTUBE ASSEMBLY, LH



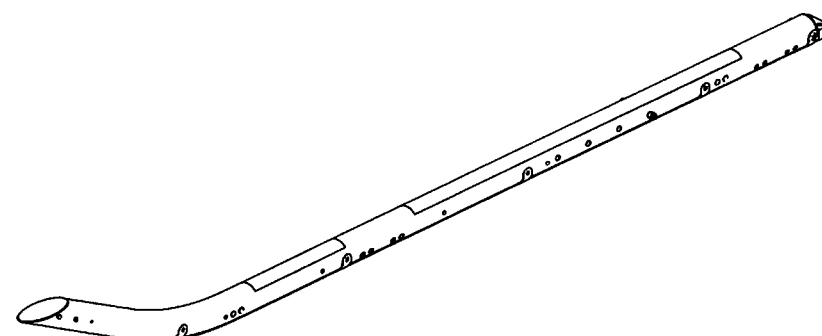
D4168-042 350 SKIDTUBE ASSEMBLY, RH

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D4168-043 350 SKIDTUBE ASSEMBLY, LH

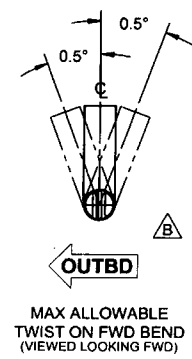
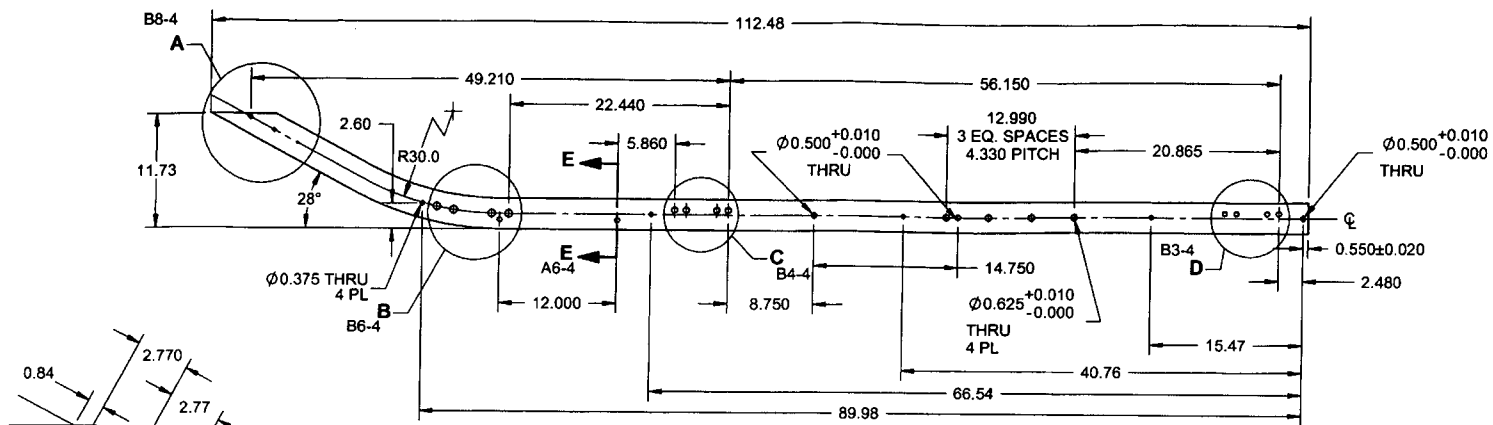


D4168-044 350 SKIDTUBE ASSEMBLY, RH

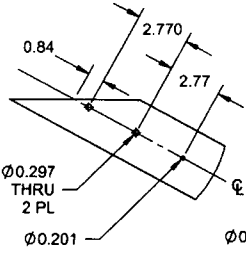
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DATE	13.07.11	

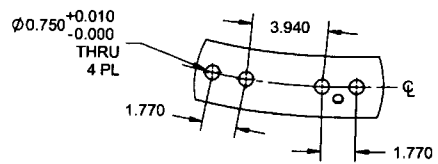
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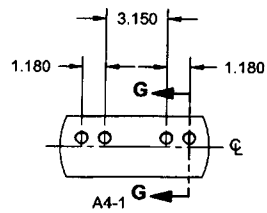
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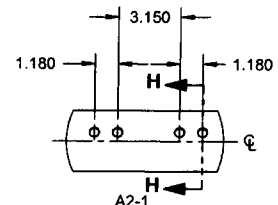
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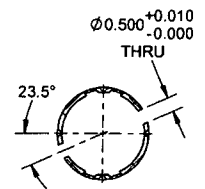
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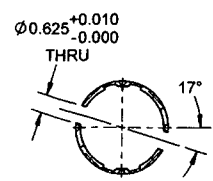
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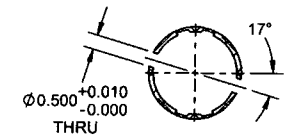
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SECTION E-E
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SECTION G-G
SCALE 3X, 4 PL

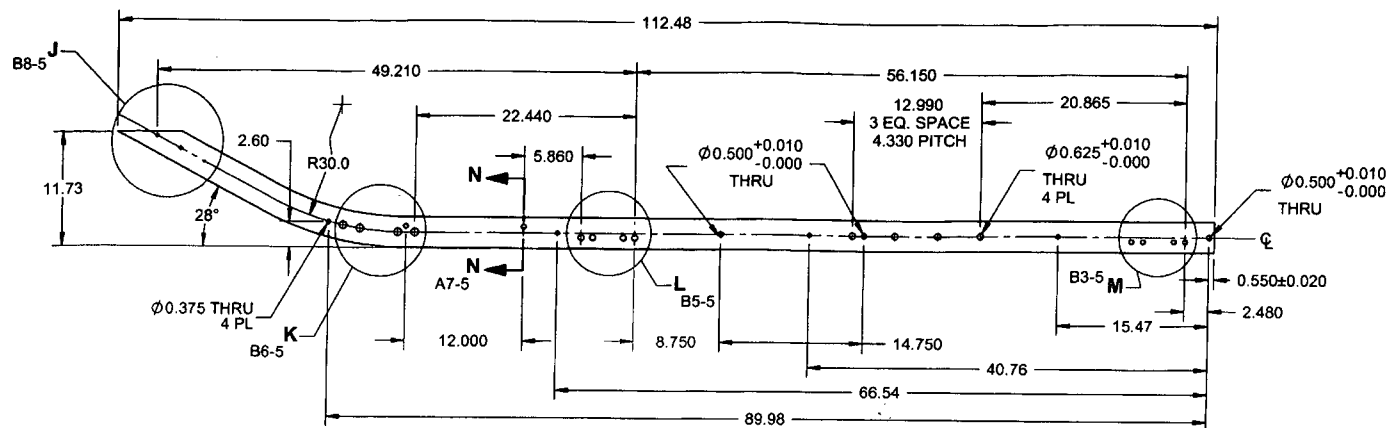


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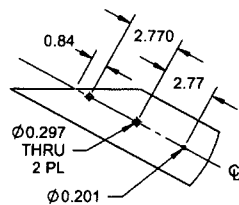
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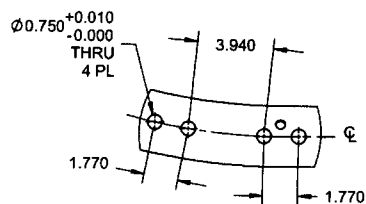
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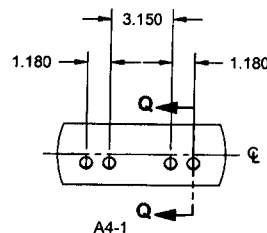
D4168-2 RH SKIDTUBE



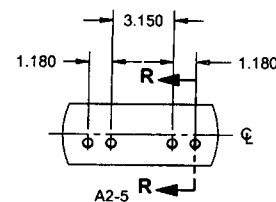
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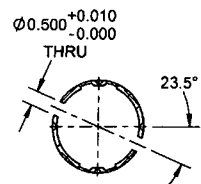
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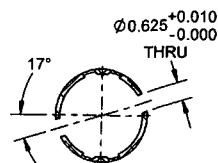
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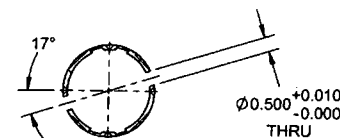
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SECTION N-N
SCALE 3X, 2 PL



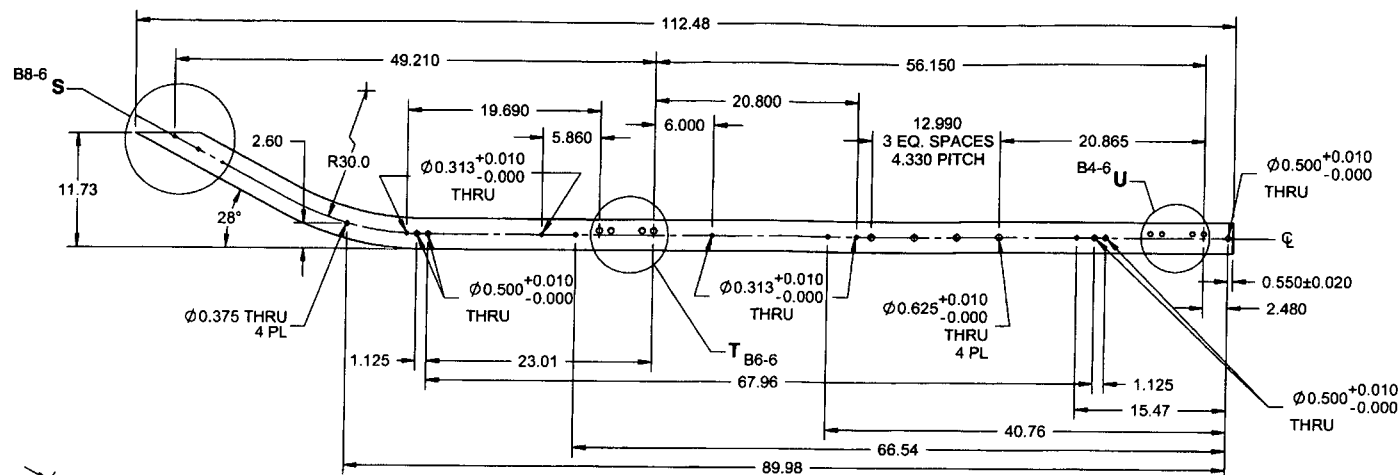
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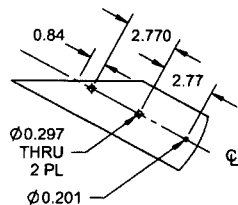
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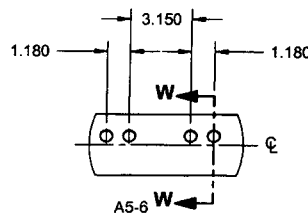
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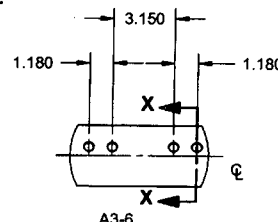
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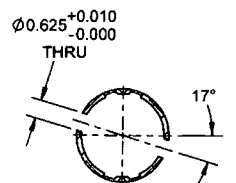
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D8-6
SCALE 2X



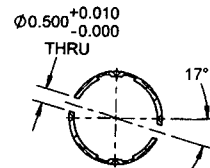
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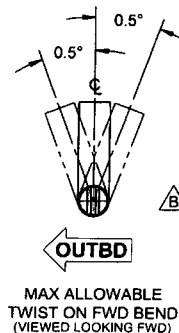
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SCALE 2X



SECTION W-W
B6-6
SCALE 3X, 4 PL



SECTION X-X
B4-6
SCALE 3X, 4 PL

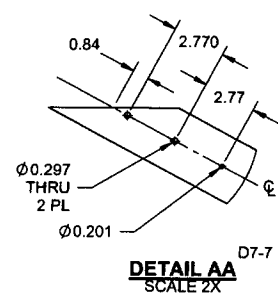
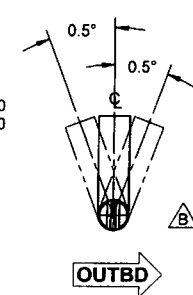
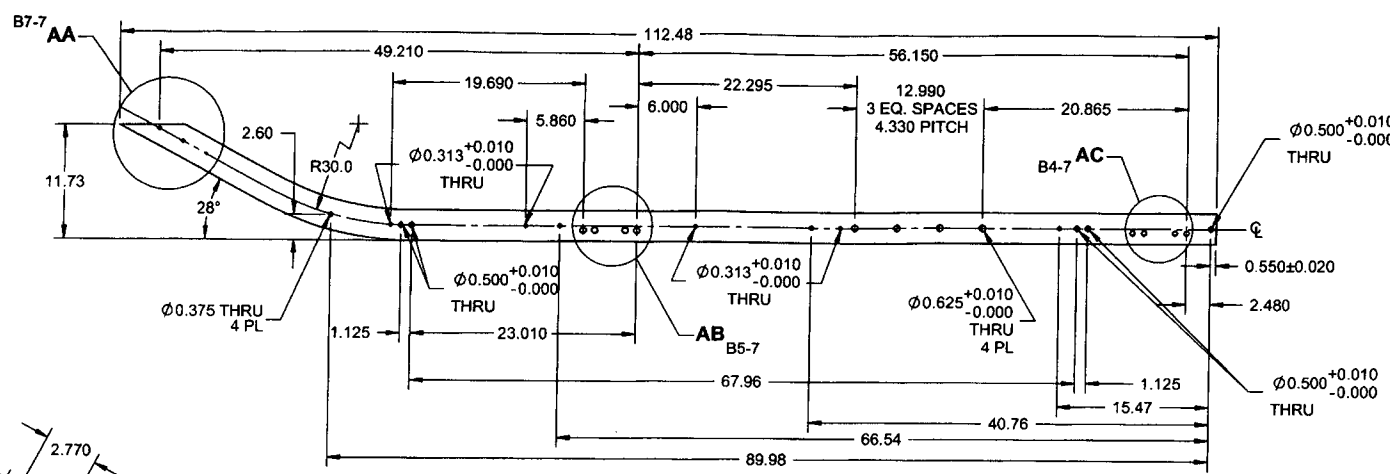


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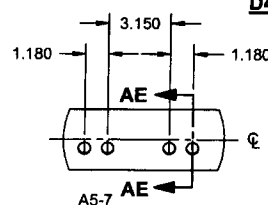
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REV. B
SHEET 6 OF 11
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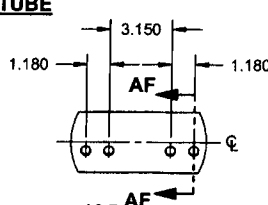
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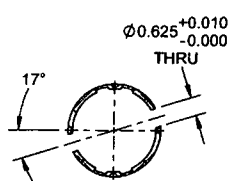
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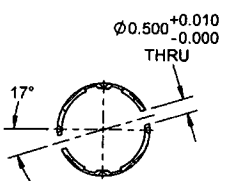
DETAIL AB
SCALE 2X



DETAIL AC
SCALE 2X



SECTION AE-AE
SCALE 3X, 4 PL



SECTION AF-AF
SCALE 3X, 4 PL

D4168-4 RH SKIDTUBE

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APPROVED	JB	
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